

REMARKS

Claims 1-7 and 21, 22 and 24-28 are pending in the instant application. Claims 1-24 presently stand rejected. Claims 1, 21, and 24 are amended, claims 8-20 and 23 are canceled and claims 25-27 are added herein. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

Drawings

Neither the Office Action mailed January 11, 2007, nor the Final Office Action mailed on September 14, 2007 indicate whether the drawings are acceptable or objectionable to the Examiner. Accordingly, Applicant respectfully requests an indication from the Examiner whether the drawings are accepted.

Claim Rejections – 35 U.S.C. § 103

Claims 1-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fossum et al. (US 6, 611, 288) in view of various combinations of Ackland et al. ('Camera on a Chip'), Younse et al. (US 4,805,023), Lin et al. (US 4,920,428), and Katoh et al. (US 5,796,430). Claims 8-20 and 23 have been canceled by way of this amendment. Therefore, the rejection with regards to these claims is moot.

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art.” M.P.E.P. § 2143.03.

Amended claim 1 expressly recites:

A MOS image sensor comprising:

a pixel array formed from a plurality of pixels arranged in a matrix of rows and columns;

location processing means for providing a digital location number for each pixel of the pixel array;

signal processing circuitry for reading out signals from the pixel array and outputting processed pixel signals;

dead pixel comparator circuitry for receiving the processed pixel signals from the signal processing circuitry and examining the processed pixel signals to see if they are indicative of dead pixels;

location storage circuitry for receiving dead pixel information from the dead pixel comparator circuitry and for storing the digital location

number generated by the location processing means for each dead pixel, *wherein digital location numbers are stored in the location storage circuitry only for pixels that are determined to be dead pixels*; and

location comparator circuitry for comparing the digital location number of a pixel that is being processed by the signal processing circuitry with the stored digital location numbers of dead pixels to determine if the pixel that is being processed corresponds to a dead pixel, *wherein the pixel array and the dead pixel comparator circuitry are formed on a single integrated circuit*.

(**emphasis added**). Therefore, independent claim 1 requires a location storage circuitry for storing digital location numbers **only** for pixels that are determined to be **dead pixels**. Applicant respectfully submits that the cited references fail to disclose, teach or suggest at least this expressly recited element as is more fully explained below.

Attention is kindly directed to FIG. 3 and the associated text of Fossum. Fossum recites at col. 3, lines 46-49, “Each register is associated with comparison logic 320 which operates according to a hard-wired sequence to control **each** of the pixels to provide their information during processing.” [**emphasis added**]. In other words, Fossum discloses storing information regarding **each** of the pixels of the pixel array. To be sure, attention is further directed to col. 3, lines 61-63 of Fossum, which recites “...bad columns and/or single pixels can be flagged by gates and indicated by the status bits 299.” That is, status bits 299 are disclosed by Fossum as indicating a bad pixel area. Thus, a fair reading of Fossum indicates that Fossum discloses storing information for each pixel in the pixel array. Otherwise, Fossum would have no need for status bits 299 to indicate whether a pixel was bad. Therefore, since Fossum discloses status bits 299 to indicate whether a pixel is bad, Applicant respectfully submits that a fair reading of Fossum indicates that Fossum stores information in the registers for every pixel in the pixel array. **Since Fossum discloses storing information for every pixel in the pixel array, Fossum necessarily fails to disclose storing digital location numbers only for pixels that are determined to be dead pixels, as expressly recited in amended claim 1.**

Ackland does not cure the deficiencies of Fossum. Thus, the cited references fail to disclose each and every element of claim 1, as required under M.P.E.P. §2143.03. Independent claim 21 includes similar nonobvious elements as independent claim 1.

Accordingly, Applicant respectfully requests that the §103(a) rejections of claims 1 and 21 be withdrawn.

The dependent claims are nonobvious over the cited references for at least the same reasons as discussed above in connection with their respective independent claims, in addition to adding further limitations of their own. Accordingly, Applicant respectfully requests that the instant § 103 rejections of the dependent claims also be withdrawn.

New Claims 25-27

By way of this amendment, Applicant has added new claims 25-27, of which, claim 25 is independent. Applicant respectfully submits that claims 25-27 are allowable over the cited references for at least the same reasons as given above in support of independent claim 1. Furthermore, Applicant respectfully submits that the cited references, whether taken singularly or in combination fail to disclose each and every element of independent claim 25. For example, independent claim 25 recites, in pertinent part, “*...means for precharging the plurality of pixels to a fixed voltage...*” Applicant respectfully submits that not only do the cited references fail to disclose, teach or suggest storing digital location numbers **only** for dead pixels, but that the cited reference further fail to disclose means for precharging the plurality of pixels to a fixed voltage. Accordingly, Applicant respectfully requests that a timely notice of allowance be issued for all pending claims.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant believes the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative at (206) 292-8600 if the Examiner believes that an interview might be useful for any reason.

CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP



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Andrew J. Cameron
Reg. No. 50,281
Phone: (206) 292-8600